

TIF-29339

Patent Amendment

REMARKS

This application has been carefully reviewed in light of the Office Action dated August 15, 2003. Applicants have amended claims 1 and 12 and added claims 23 and 24. Reconsideration and favorable action in this case are respectfully requested.

The Examiner has objected to the claim 1 because of an informality regarding a typographical error in the placement of the period at the end of the claim. Applicants have amended claim 1 in conformance with the Examiner's objection; however, Applicants note that there is no way to clearly show the deletion of the space between the last word of the claim and the "." at the end of the claim.

The Examiner has rejected claims 1-2, 5-7, 10-13, 16-18 and 21-22 under 35 U.S.C. §102(e) as being unpatentable over U.S. Pat. No. 6,173,408 to Jimbo et al (hereinafter "Jimbo"). Applicants have reviewed this reference in detail and does not believe that it discloses or makes obvious the invention as claimed.

The Examiner has rejected claims 3 and 14 under 35 U.S.C. §103(a) as being unpatentable over Jimbo in view of U.S. Pat. No. 6,367,023 to Kling. Applicants have reviewed these references in detail and does not believe that they disclose or make obvious the invention as claimed.

The Examiner has rejected claims 4 and 15 under 35 U.S.C. §103(a) as being unpatentable over Jimbo in view of U.S. Pat. No. 3,593,300 to Driscoll et al (hereafter "Driscoll"). Applicants have reviewed these references in detail and does not believe that they disclose or make obvious the invention as claimed.

The Examiner has rejected claims 8 and 19 under 35 U.S.C. §103(a) as being unpatentable over Jimbo in view of U.S. Pat. No. 5,099,421 to Buerkle et al (hereinafter "Buerkle"). Applicants have reviewed these references in detail and does not believe that they disclose or make obvious the invention as claimed.

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Applicants note with appreciation that the Examiner has indicated that claims 9 and 20 are allowable if rewritten in independent form including all of the limitation of the base claim and any intervening claim. Applicant has rewritten these claims as claims 23 and 24 to include the subject matter of having task models including possible degradations. The subject matter of intervening claims which was not relevant to degradations was not included in these claims.

In the Jimbo reference cited by the Examiner, if a LPWR signal is received from the outside, the instruction execution control (507) predicts power consumption by reference to a power consumption table (508). If the predicted power consumption exceeds the maximum power consumption threshold designated by LPWR, then a hold signal (HOLD) is asserted to prevent pre-fetching and decoding of instructions (col. 8, lines 1-14). Hence a threshold can be asserted over the total power consumption of the first second and third circuit blocks 101, 201, and 301(col. 9, line 65 through col. 10, line 5 and col. 10, lines 46-50).

Such a scheme may work in a limited number of circumstances, but enforcing a power threshold at which processing is suspended will clearly not work in many modern applications. For example, a circuit in a mobile telephone cannot simply suspend processing incoming audio information once a threshold is reached without greatly affecting the utility of the mobile phone.

The present invention as described in claims 1 and 12 works in a vastly different way than the Jimbo reference. In the present invention, consumption information is calculated for a plurality of scenarios for executing a plurality of tasks, where the consumption information of each scenario is based on probabilistic values for activities associated with the tasks. A scenario is executed on said plurality of processing modules responsive to said consumption information.

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As stated in the Background of the present application, the present invention addresses the need to manage power in a circuit without seriously impacting performance. The device taught by the Jimbo reference simply stops processing any new instructions at a point where the next instruction would cause a power threshold to be exceeded. This can, and likely will, significantly impact performance of a device. In the present invention, however, allows the evaluation of scenarios which can change as the tasks executed by the processing system change. Different scenarios can, for example, use different sequences for executing the tasks, or degrade the performance of one or more of the tasks.

The ability to create and evaluate different scenarios of tasks is not taught by Jimbo or the other references cited by the Examiner. Applicants therefore respectfully request allowance of independent claims 1 and 12. Since claims 2-11 and 13-22 are dependent upon claims 1 and 12, respectively, Applicants respectfully request allowance of these claims as well.

With the addition of two independent claims, a fee of \$122.00 is due as specified on the attached Fee Transmittal. The Commissioner is hereby authorized to charge any fees or credit any overpayment, including extension fees, to Deposit Account No. 20-0668 of Texas Instruments Incorporated.

Applicants have made a diligent effort to place the claims in condition for allowance. However, should there remain unresolved issues that require adverse action, it is respectfully requested that the Examiner telephone Alan W. Lintel, Applicants' Attorney at (972) 664-9595 so that such issues may be resolved as expeditiously as possible.

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For these reasons, and in view of the above amendments, this application is now considered to be in condition for allowance and such action is earnestly solicited.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "Alan W. Lintel", is written over a horizontal line.

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